## IN THE CLAIMS

1. (Previously Presented) A method for transmitting traffic having disparate rate components, comprising:

receiving a plurality of traffic streams, each traffic stream including a first component and a reduced rate second component associated with the first component;

segmenting the first components of the traffic streams into successive cells; and

distributing the second components of the traffic streams between a defined set of the cells for in-band transmission of the second components in a payload of each of the cells, the second components being positioned at the beginning of the payload of each cell.

2. (Original) The method of Claim 1, further comprising substantially evenly distributing the second components of the traffic streams between the defined set of cells.

3. (Original) The method of Claim 1, further comprising segmenting the first component of each traffic stream into a fixed position in the successive cells.

4. (Original) The method of Claim 1, wherein the defined set of cells is a superframe, further comprising transmitting successive superframes without insertion of intervening superframe information.

5. (Previously Presented) The method of Claim 1, wherein distributing the second component of the traffic streams between the defined set of cells comprises including in each cell payload the second component for a portion of the traffic streams such that the second components for all of the traffic streams are included within the defined set of cells.

6. (Original) The method of Claim 1, wherein the reduced rate second component comprises information received as superframe information.

7. (Original) The method of Claim 1, wherein the reduced rate second component comprises control information for the first component.

8. (Original) The method of Claim 1, wherein the first component is a DS-0 and the reduced rate second component is the Channel Associated Signaling (CAS) value for the DS-0.

9. (Original) The method of Claim 1, wherein the cell is asynchronous transfer mode (ATM) cell.

10. (Original) The method of Claim 1, wherein the first component is a DS-0, the reduced rate second component is the CAS value for the DS-0, and the cell is an ATM adaption layer (AAL) cell.

11. (Original) The method of Claim 10, further comprising repeating included CAS values in each AAL cell.

12. (Original) The method of Claim 10, further comprising providing a 4 bit sequence count in an AAL header for the AAL cell.

13. (Previously Presented) The method of Claim 1, further comprising:

storing a current value for the reduced rate second components for each traffic stream in a memory; and

retrieving the second components of traffic streams for inclusion in the cells from the memory.

14. (Previously Presented) A method for reformatting telephony traffic into asynchronous transport mode (ATM) adaption layer (AAL) cells for transmission on a network, comprising:

receiving a plurality of telephony streams, each telephony stream including a DS-0 channel and a Channel Associated Signaling (CAS) value for the DS-0 channel;

segmenting the DS-0 channels into successive AAL cells; and

including in a payload of each AAL cell the CAS value for a portion of the DS-0 channels such that the CAS values for all of the DS-0 channels are included within a superframe of AAL cells, the CAS values being positioned at the beginning of the payload of each AAL cell.

15. (Original) The method of Claim 14, wherein the superframe contains 24 AAL cells.

16. (Original) The method of Claim 14, wherein the superframe contains 16 AAL cells.

17. (Previously Presented) A telecommunications signal embodied in a transmission media comprising:

a superframe including a plurality of cells, each cell having a payload;

the cell payloads each comprising a successive segment of a first component for a plurality of traffic streams and a reduced rate second component for a portion of the traffic streams, the second components being positioned at the beginning of the payload of each cell; and

the cells in the superframes together comprising the reduced rate second components for all of the traffic streams.

18. (Original) A telecommunications signal of Claim 17, the first component comprising a DS-0 and the reduced rate second component comprising the CAS value for the DS-0.

19. (Previously Presented) The telecommunication signal of Claim 17, further comprising the successive segments of the first component for the traffic streams having a fixed position in each cell.

20. (Original) The telecommunications signal of Claim 17, the reduced rate second component comprising superframe information.

21. (Original) The telecommunications signal of Claim 17, the reduced rate second component comprising control information for the first component.

22. (Previously Presented) The telecommunications signal of Claim 17, substantially each cell in the superframe comprising reduced rate second components for a same number of traffic streams.

23. (Previously Presented) A telecommunications device, comprising:

one or more ports receiving a plurality of traffic streams, each traffic stream including a first component and a reduced rate second component associated with the first component; and

a reformatting device operable to segment the first components of the traffic streams into successive cells and to distribute the second components of the traffic streams between a defined set of cells for in-band transmission of the second components in a payload of each of the cells, the second components being positioned at the beginning of the payload of each cell.

24. (Original) The telecommunications device of Claim 23, further comprising the reformatting device operable to substantially evenly distribute the second components of the traffic streams between the defined set of cells.

25. (Original) The telecommunications device of Claim 23, further comprising the reformatting device operable to segment the first components of each traffic stream into a fixed position in the successive cells.

26. (Previously Presented) The telecommunications device of Claim 23, the reformatting device operable to include in each cell payload the second component for a portion of the traffic streams such that the second components for all of the traffic streams are included within the defined set of cells.

27. (Original) The telecommunications device of Claim 23, wherein the first component is a DS-0, the reduced rate second component is the CAS value for the DS-0 and the cell is an ATM adaption layer (AAL) cell.

28. (Original) The telecommunications device of Claim 27, the reformatting device operable to provide a 4 bit sequence count in an AAL header for the AAL cell.